日本古生物学會
報告・紀事

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Palaeontological Society of Japan

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日本古生物學會
Palaeontological Society of Japan

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日本古生物學會記事

Proceedings of the Palaeontological Society of Japan.

昭和 11 年 6 月 13 日　日本古生物學會第 3 回例回を京都帝國大學理學部地質學鑛物學教室に開く（參加者 37 名）。講演者並に題目次の如し。

Foraminifera from the Kakegawa District, Tôtômi, Japan.　Kiyosi ASANO

Über Polymorphismus und Variabilität bei *Operculina japonica* HANZAWA aus Tonoirisawa, Yamanasi-ken, Japan.　Kôiti SUZUKI und Seizi INAGAKI

A New Occurrence of *Pseudoschwagerina* (*Schwagerina*) *princeps* in Kyûsyû, Japan.　Haruyosi HUZIMOTO

A Supplementary Note on the Genus *Temnotrema* and its Allies (代讀)　Syôzô NISHIYAMA

千葉縣豐成の貝化石層（關東南部新生代化石群　其の四）　池邊展生

千葉縣大谷流の貝化石層（關東南部新生代化石群　其の五）　池邊展生

千葉縣平山の化石層（關東南部新生代化石群　其の六）　大炊御門經輝・池邊展生・鈴木好一・坂倉勝彦

Molluscan Fossils from the Raised Beach Deposit of Takai, Tateyama-Hôzyô-mati, Tiba Prefecture. (Studies on the Fossil Mollusca of the Bôsô Peninsula, no. 1.)　Kôiti SUZUKI and Kenichi ICHIMURA

On Some Species of the Genus *Yoldia* from the Satomi Series of the Bôsô Peninsula. (Studies on the Fossil Mollusca of the Bôsô Peninsula, no. 2.)　Kôiti SUZUKI

東京市小石川區江戸川公園の貝化石層（關東南部新生代化石群　其の七）　大炊御門經輝

化石ハイガヒの貝殼測定學的研究　大炊御門經輝

Pliocene Mollusca from Manganzi in Kotomo-mura, Akita Pref, Japan. (代讀)　Yanosuke OTUKA

秋田縣由利・平鹿郡地方の高瀬川凝灰岩層の化石（代讀）　大塚彌之助

ヤグラモシホ貝 *Crassatellites foveolatus* (Sow.) の殼の構造に就て　丹　桂之助

On a Gastropod Genus *Siphonalia*.　Jirô MAKIYAMA

Non-marine Shells in the Naktong-Wakino Series.　Teiichi KOBAYASHI and Kôiti SUZUKI

Apical End of the Actinoceroid. (代讀)　Teiichi KOBAYASHI

熱河及び間島産エステリアの二三に就いて（代讀）　松澤　勳

Proparian Olenidae and its bearing on the Trilobite Classification. (代讀)　Teiichi KOBAYASHI

A Fossil Roe Deer, *Capreolus* (*Capreolina*) *mayai* n. subgen. & n. sp, from the Inland Sea of Japan (代讀)　Shigeyasu TOKUNAGA and Fuyuji TAKAI

Plant Fossils from the *Stegodon* Bed near Akashi.　Shigeru MIKI

On the Fossil Leaves of *Cercidiphyllum* from Japanese Islands. (代讀)　Seidô ENDÔ

神戸附近産化石植物群に就いて（代讀）　遠藤誠道

北票含炭層産の植物化石に就いて（代讀）　松澤勳

尙翌14日 明石方面に地質見學に赴きたり（參加者10餘名）。

入會者

7月31日迄の入會者次の如し（*を附せるは日本古生物學會規則による部會のみの會員なり）。

今泉力藏
酒井隆郎
菅原省
西尾敏夫
*三木茂
*B. F. Howell
*Philip W. Reinhart
小平正夫
*櫻井淳吉
土田定次郎
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*水上勝義
*John F. Mason
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*山階芳麿
*R. W. Chaney
*李四光

日本古生物學會報告
(Transactions of the Palaeontological Society of Japan)

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22. The Geologic Significance of the Recent Mollusca from the Vicinity of Isinomaki, Rikuzen.

By

SITIHEI NOMURA and KOTORA HATAI

Contribution from the Institute of Geology and Palaeontology,
Tôhoku Imperial University, Sendai, Japan

[Received July 18th., 1936; read September 26th., 1936]

The shells comprising the present note were collected from the sand beach of Nagahama, stretching between Isinomaki at the west to Watanoha at the east, and bounded by the Kitakami-gawa, a large river at the former and by the inlet to Mangoku-ura at the latter; the length of the beach is about two and a half miles with a maximum breadth of about seven hundred yards or more.

This beach is free from muddy materials and rocky shores and consists of sand only. According to the sea chart No. 72, published by the Hydrographic Department of the Imperial Japanese Navy, the adjacent sea is a very shallow one and with a very gently sloping sea bottom. Sand continues to a depth of some 30–35 meters before grading into muddy material at a distance of about two miles from the shore line. Beyond the depth of 35-40 meters the sea bottom becomes rocky. Since no small river empty into this sand beach, and since it is free from muddy or rocky materials, the shell fauna is a small one. The geographic distribution of *Barnea dilatata*, *Raeta magnifica*, *Volsella hanleyi*, *Epitonium acuminatum* and *Lingula unguis* have been extended by the present collection. The total number of species collected are given below; those marked an asterik indicate the abundant forms and those with two asteriks very few individual number.

Anomia cytaeum GRAY
Arca boucardi JOUSSEAUME**
A. inflata REEVE*
A. subcrenata LISCHKE
Barnea dilatata SOULEYET*
Clementia vatheleti MABILLE**
Cyclina sinensis GMELIN**
Dosinia japonica REEVE
Macoma incongrua MARTENS
M. tokyoensis MAKIYAMA*
M. secta CONRAD
M. vestaloides YOKOYAMA**
Mactra sachalinensis SCHRENCK*
M. sulcataria REEVE
M. veneriformis REEVE
Meretrix meretrix LINNAEUS*
Mya arenaria LINNAEUS*
Mytilus crassitesta LISCHKE**
Paphia philippinarum ADAMS and REEVE*
Protothaca adamsii REEVE**
P. jedoensis LISCHKE**
Ostrea gigas THUNBERG
Pecten nipponensis KURODA**
Raeta magnifica YOKOYAMA
R. yokohamensis PILSBRY*
Sanguinolaria olivacea JAY*
Septifer virgatus WIEGMANN
Siliqua pulchella DUNKER
Solecurtus divaricatus LISCHKE
Solen gouldii CONRAD
S. krusensterni SCHRENCK
Tellina iridella MARTENS*
T. nitidula DUNKER
Taras ustus GOULD
Volsella hanleyei DUNKER**
V. modiola LINNAEUS*
Yoldia notabilis YOKOYAMA
Acmaea pallida GOULD**
Argobuccinum oregonense REDFIELD**
Epitonium acuminatum SOWERBY**
Haliotis kamtchatkana JONAS**
Littorina brevicula PHILIPPI**
Monodonta labio LINNAEUS**
Nassarius festivus POWYS
Natica janthostoma DESHAYES**
Turbo coreensis RECLUZ
Tegula basilirata PILSBRY**
T. rustica GMELIN
Olivella furgurata ADAMS and REEVE
Purpura burnettii ADAMS and REEVE**
Polinices didymus BOLTEN*
Thais luteostoma DILLWYN
Tritonalia japonica DUNKER**
Umbonium moniliferum LAMARCK

Brachiopoda
Lingula unguis LINNAEUS

Cirripedia
Balanus rosa PILSBRY**

Echinodermata
Astrerias versicolor SLADEN
Echinarachnius mirabilis AGASSIZ
Strongylocentrotus pulcherinus A. AGASSIZ*

Land and Fresh-water shells
Ganesella species indet.**
Thiara libertina GOULD**
Viviparus malleatus REEVE**

From the above list, it is interesting to find that there are a number of rock-inhabiting species intermingled among the sand loving forms, also the presence of those which thrive on a muddy or sandy-mud bottom in the collection is also of interest. True brackish water types of shells were not collected unless *Cyclina sinensis* (GMELIN) is considered to be one. The presence of land mollusca or fresh-water shells is also a noteworthy feature of the present small collection.

The rock-inhabiting species were all collected from about 300 meters or slightly more from the eastern part of the beach where are found rocky shores of their original habitat. Prevailing wind and currents seem to be responsible for their presence on the sand beach where they do not normally live. There are some mud-loving species in the collection, but their number is a small one, being represented by either a single isolated valve, or by a few individuals, showing that the sand environment was unfavorable. The fresh-water and land shells seem to have been carried down to the sea by the Kitakami-gawa and brought to the beach by the agency of currents.

The varied fauna found on this beach is valuable in explaining or giving as examples the following statement by TWENHOFEL.

According to TWENHOFEL[1], "In any consideration of the environments of organisms, four phases of the individual organic history must be considered. These are the environments in which the organisms lived, the environments in which they died, the environments in which the dead bodies and appendages endured after death, and the environments in which the preservable remains were entombed."

Thus we find that the presence of rock-inhabiting species strewn on the sand beach apart from their original habitat is a good example. Consequently, the first phase of the rock-inhabiting species was the rocky-shore about 300 or slightly more meters apart from their point of discovery, the second phase was probably the shallow water adjacent to the rocky-shores, and the third phase is where they were found. Assuming that the fourth phase would be found, it would probably be in the sand beach or at a place near by.

Such examples are frequently met with and brought to our attention when collecting recent shells from the strand line. It also seems that more attention, than hitherto given, should be directed along such facts. Knowledge of such phenomena are important in interpreting the conditions under which the fossils once lived. Further, we hope to give further examples in the future together with our views on other lines of interesting work or that which may be applied to the fossil fauna within the scope of our study. Without further studies on the various features of the recent molluscan fauna, a full inrtepretation of the fossil one is not to be expected and an attempt to do so, cannot be regarded as reasonable.

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[1] W. H. TWENHOFEL: Environment in Sedimentation and Stratigraphy, Bull. Geol. Soc. America, Vol. 42, pp. 407-423, 1931.

In order to bring about interesting results from a fossil fauna, the following points should be given consideration, those points are ; (1) the kind of fauna common to the (a) tidal zone of sandy, muddy, gravelly or rocky environment, (b) subtidal zone of such habitats, (c) and zones of various depths of various habitats or environments, (2) the kind of fauna common to the (a) open sea, (b) areas near mouths of large rivers, (c) estuaries, (d) bays, and (e) promontories, (3) the kind of fauna common in habitats of high or low salinity, or, brackish waters, stagnant waters, and etc., (4) the kind of fauna common to rough water and that common to quiet water, (5) the influence of oceanic currents, prevailing winds and "Tunami" on the living and dead fauna, and, (6) the four phases of environment stated by TWENHOFEL. Also studies are needed along the lines of the distance a dead shell may be carried, either by oceanic currents, prevailing winds or other agencies. Further it is also necessary to make observations on the distance a dead shell may be carried from the shore sea-wards, from the sea land-wards, from the beach up on the land.

Shell-repair

Among the numerous specimens of *Meretrix meretrix* LINNAEUS collected from Nagahama beach, one was found to have a sort of shell-repair line extending from behind the beak to the postero-ventral margin of the right valve.

This groove extending from the beak to the postero-ventral margin is about 0.5mm. at the broadest point, and merely a line at the beak ; the concentric growth lines do not appear to transverse this groove, but become very strong upon reaching it and all are directed upwards or dorsally on both sides of the groove, thereon laterally, they become obsolete as in the general case of the surface sculpture in the shells of this species. This groove is not in the least indicated or found as traces on the inner side of the shell.

It is at present hard to decide whether this may be a case of shell-repair or a case of abnormality. However, it is interesting to find such a shell in the collection. It may also be stated that, it is generally regarded that shells showing traces of shell-repair are indicative of shallow water origin. Thus, in fossil state this datum may be found to be of importance in dealing with the depth of deposition of the strata yielding such interesting fossils.

Recent Concretions

In the collection from Nagahama was found a right valve belonging to *Meretrix meretrix* LINNAEUS, in the process of becoming a concretion. The valve is not much worn, the teeth only are slightly abraded. Sand grains together with fragments of shells belonging to such genera as *Tellina*, *Mytilus*, *Raeta*, *Umbonium* and *Corbicula* are found adhering to the greater part of the inner surface and also to the sides of the exterior surface of the shell. The sand grains are compactly cemented to the shell, giving to it an aspect of a true fossil.

This shell was found on the strand line of Nagahama beach, not far distant from the small town of Watanoha.

Concretions, especially recent ones, are interesting in several respects, and their characteristics have been dealt with by TWENHOFEL[1]. The process by which the present concretion had begun is hard to say, but it may be possible that decaying organic matter may have been one of the causes.

However, it appears that the time required for the making of a concretion not only differs according to the resulting size, but also to the kind of nuclei. In the present case it appears that very little time has elapsed to make the concretion in the view that only the teeth have been abraded regardless of the fact that other surfaces are exposed. Also the sand grains cemented on the shell are also slightly smoothed, probably by sand abrasion.

Another concretion specimen in the collection appears to have developed around the burrow tubes of certain marine annelids such as those belonging to *Arenicola*. At present there are several

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1) TWENHOFEL: Treatise on Sedimentation, pp. 696–716, 1932.

different species of encrusting Bryozoa occupying the upper and under surfaces and some also the inner part of the tubular holes. At several places are found fragments of molluscan shells embedded in the material making up the concretion. This concretion is made up of hardened fine clayey material. It is irregular in shape and with a boss at its middle, from which radially extend four rough branches with two having tubular holes throughout their length. The boss is apparentlv excavate.

This concretion unlike the one mentioned above, seems to have taken much more time for its development. Also it seems to have been subjected to weathering for a longer period than the other.

陸前石巻附近現生貝類の地質學的考察 （摘要）

野村七平, 畑井小虎

宮城縣石卷渡波間の海岸に沿うて波浪に打ち上げられた貝殼の採集結果の概報をする。或物の個體數は極めて多量ではあるが種類は多くない。分布的に見て面白さうなものもあるが,筆者等の述べたいことは採集中に氣づいた地質的方面のことである。石卷渡波間は所謂白砂青松の海岸で北上川口と萬石浦の出口に岩石の露出がある。北上川口を去る凡そ 300 米の地點の砂濱に岩石に附着して生活する貝,陸產,淡水產の貝が,砂中生活を營むものと一緒に發見せられる一事は極めて興味深く感じた。陸產,淡水產の貝の存在は砂丘を越へて海岸に來たと考へるより,北上川によつて一旦海に出でそれから潮流で濱邊に打ちあげられたと考へた方が合理的であるし,岩石上に棲息するものは多分北上川口附近から風と浪の力で轉々採集地點に運搬されたものと考へたい。生物によつては死ぬ場所も生きる場所も,死んで埋もれる場所も同じなものもあるが,或物によつては大に異るものがある。之等の事實より推論して化石を含む地層の沈澱相を從來より深く考へて見たい。

Jour. Geol. Soc. Japan, Vol. 43, Pl. 46 (15) (NOMURA and HATAI)

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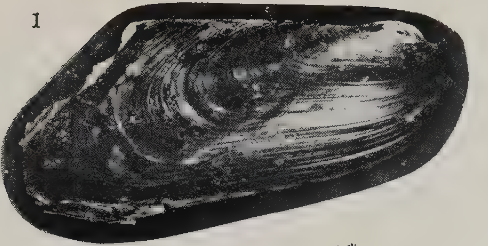

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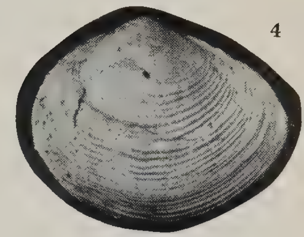

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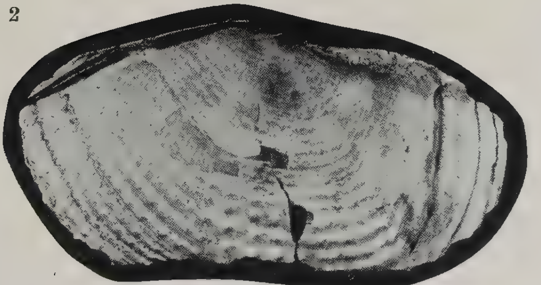

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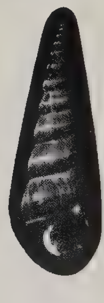

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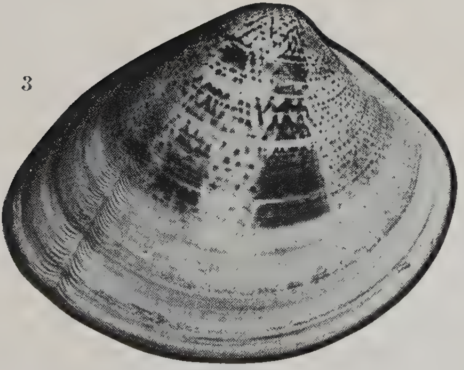

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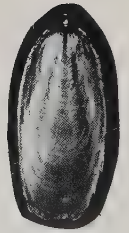

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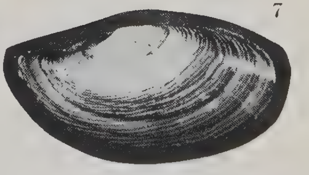


1. *Volsella hanleyi.* 2. *Barnea dilatata.* 3. *Meretrix meretrix*, showing shell-repair. 4. *Raeta magnifica,* 5. *Epitonium acuminatum.* 6. *Lingula unguis.* 7. *Yoldia notabilis.* (all in natural size).

23. 樺太産白堊紀植物の 2・3 （豫報）

島 倉 巳 三 郎

（昭和 11 年 2 月 29 日講演，9 月 14 日受理）

組織の保存せられてゐる本邦産植物化石のうち，北海道夕張河筋の上部白堊紀層より出るものは既に Reiss (1907), Stopes (1910, 1911), 藤井 (1910), Kershaw (1010), 鈴木 (1910), 遠藤 (1925) 及び小倉 (1930, 1932) の諸氏によつて發表されてゐるが，南樺太に發達する同系統の地層中にも内部構造の明かな材料がある。筆者は清水博士及び稲井學士によつて豐原郡川上村，豐原町並川及び軍川から採集された材料を檢べて次表の樣な種類を見出した。此の中には構造上の特徴がよく保存せられてゐない爲，或は筆者の知識並びに研究の不充分な爲めに，止むを得ず假りに決めておいたもの（? 印）もあるから，玆には豫報として重要な數種に就いてのみ述べる。

Cladophlebis frigida (Heer)	Pinnule
Cladophlebis ? sp.	Pinnule
? *Nilssonia* sp.	Leaf
Nipponophyllum sp. nov.	Leaf
Dadoxylon cfr. *tankoense* (Stopes et Fujii)	Wood
Planoxylon Inaii Shimakura	Wood
Brachyphyllum sp. (Aff. *crassum* Lesq.)	Branch
Brachyphyllum vulgare (*Yezonia vulgaris* S. et F.)	Branch
Brachyoxylon sp.	Wood
Geinitzia sp. nov.	Branch
? *Geinitzia* sp.	Branch
Cryptomeriopsis antiqua Stopes et Fujii	Branch
Paracupressinoxylon cryptomeriopsoides Shimakura	Wood
Cedrus ? sp.	Leaf

Cedroxylon cfr. *Yendoi* Stopes et Fujii	Wood
Piceophyllum sp.	Leaf
Piceoxylon transiense Shimakura	Wood
Piceoxylon scleromedullosum Shimakura	Wood
Piceoxylon sp. (Cfr. *antiquius* Gothan)	Wood
? *Prepinus* sp.	Leaf
Pityophyllum sp.	Leaf
Phyllocladoxylon aff. *Gothani* (Stopes)	Wood
Podocarpoxylon cfr. *dakotense* Torrey	Wood
Cupressinoxylon vectense Barber	Wood
Cupressinoxylon sachalinense Shimakura	Wood
Thuites sp.	Branch
? *Sciadopitytes* sp.	Leaf
Strobilites sp. (Aff. *microsporophorus* Hollick et Jeffrey)	Male cone

Cyatheacean stem, Polypodiacean rhizome, Fern rootlet, Coniferous cone scale, Seed, and Dicotyledonous rootlet?.

(1) *Cladophlebis frigida* (Heer)

種名は表面觀より決定，材料は羽片•小羽片のみで表皮や葉肉は保存が悪いが，主脈のうちには厚膜組織に圍まれた維管束が立派に殘つてゐるものもある。内皮は不顯著，原生木部は上面中央と左右 (?) にあつて其の下方に中生木部が發達し内原型らしく見えるが，消失した部分も木部であつたとすると中原型の様にも思はれる。何れの薄片にも葉柄や地下莖を檢出することが出來なかつたが，Cyatheaceae や Polypodiaceae に屬する植物のこれ等の部分は屢々見出された。

(2) ? *Nilssonia* Brongn.

表面より觀察せず薄片のみである。表皮は一列，クチクラ僅かに發達し，裏面に氣孔様の部分があり，下表皮 (Hypoderm) は不明瞭，葉肉は單純な形の柔細胞より成る。維管束は不完全な内皮に包まれ葉肉中に點綴し平行脈である特徴を示してゐる，木部は數個の假導管より成り最小徑のものが中央にあるから中原型の發生をとる様であるが，側壁の模様が分らない爲，果してそれが原生木部であるか確かでない。樹脂道は葉肉中にあつて數個のエピセリウムに包まれてゐる。

此の材料は構造上より見ると 1910 年 STOPES が北海道の上部白堊紀層より發見し *Nilssonia orientalis* に同定したものに最もよく似て居るが，維管束の上と下の厚膜組織は甚だ不顯著で，樹脂道も小さくエピセリウムも差があり，全體として *N. orientalis* よりは簡單であるから同一種ではないらしい。*Ginkgo biloba* の葉もイデオブラスト內の結晶が消失すると多少似よつた構造となるが，木部の性質が異る上，柵狀組織も僅かながら發達し，葉緣に下表皮もあるので區別される。

(3) *Nipponophyllum* STOPES et FUJII

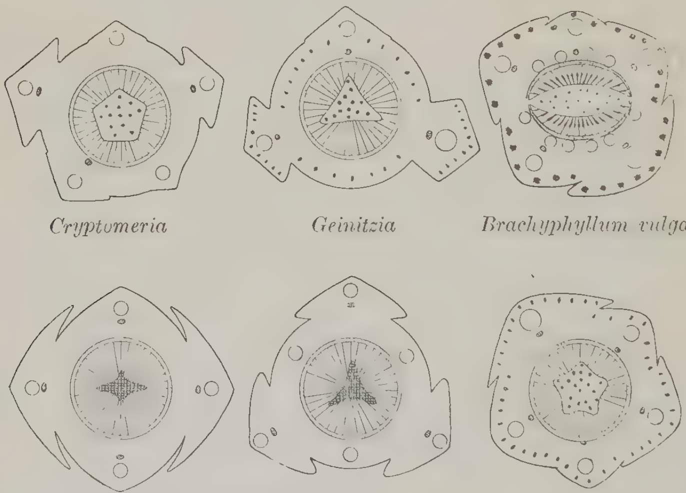
これも表面より觀察しなかつたが明かに平行脈を有する裸子植物の葉の化石である。表皮は厚いクチクラを被つた一層の細胞列で裏面のものには氣孔帶がある。下表皮は厚膜の小細胞より成り葉緣に 1–2 列，葉肉は上面柵狀で 1–2 層，下面海綿狀，內皮はよく發達して維管束を包むが上下の一部は不顯著となり，こゝと表皮の間は厚膜組織に占められてゐる。

STOPES・藤井兩氏により設けられた *Nipponophyllum* は唯一種 *N. cordaitiforme* が唯一度記載されたのみであるが，今の材料も本屬へ入れるに充分な特徵を示してゐる。然し下表皮內皮厚膜組織の分布，中心柱の構造等を比較すると明かに差異が認められるから，多分別種であらう。

STOPES・藤井の兩氏は *Nipponophyllum cordaitiforme* を Cordaites と Cycadioidea の間におき，その厚膜組織の獨特な分布より Cordaites に最も類似すると考へたが，SEWARD は Cycadales, Araucarineae, Podocarpeae 植物の葉との比較を試み，*Desmiophyllum Solmsi* との類似性を述べてゐる。筆者は平行脈を有する裸子植物葉として *Ginkgo biloba, Araucaria Bidwilli, Podocarpus Nagi* の三種，化石植物として *Nilssonia orientalis*（STOPES による），*Cordaites principalis*（JEFFREY による），*C. lingulatus* (RENAULT, STOPES), *C. Felicis* (SEWARD) 其他と比較してみたが葉肉，下皮，內皮，厚膜組織の分布，樹脂道，移入組織 (Transfusion tissue) の有無，木部の構造等に於て異り，又 *Desmiophyllum Solmsi* との類似性も極めて薄弱である。

(4) *Brachyphyllum* BRONGNIART

材料の中には外觀上並びに構造上 *Brachyphyllum* に屬させてよいものが二種程ある。第一は STOPES 及び藤井の兩氏によつて *Yezonia vulgaris* として記載されたものに全く一致しその特有な表皮下の厚膜組織 (Hypodermic sclerenchyma) や木部要素によつて特徴づけられてゐる。JEFFREY 氏によると北海道産の *Yezonia vulgaris* は New York の Kreischerville 産の *Brachyphyllum macrocarpum* NEWB. (=*B. crassum* LESQUEREUX) と同一とのことであるが, SEWARD は同屬の別種と考へてか *B. vulgaris* と組合せて居る。手元の材料は甚だ不充分であるからこれに對する斷定も *Yezonia* の類縁の推定も後日を期して居る。



Cryptomeria *Geinitzia* *Brachyphyllum vulgare*

Thuja and *Thuites* *Juniperus* *Brachyphyllum* sp.

第 2 圖　幼枝の横斷模形圖, 中央は髓, 放射線を引けるは木部, 點を施せるは篩部, 皮層中の圓は樹脂道, 黑點は厚膜細胞.

第二は *Atrotaxis* や *Brachyphyllum expansum* (STERNBERG) に似た外觀の枝葉で, 明かに *B. vulgaris* とは異るし, 氣孔の性質でも *Atrotaxis* (REID による）と區別出來る（第一圖)。莖の維管束は輪狀で葉跡附近には移入組織がよく發達し，髓と皮層には厚膜細胞が分布してゐる。

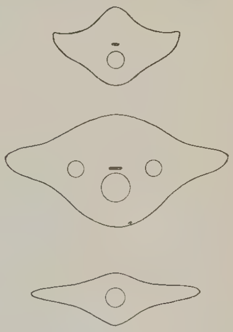
(5) *Cryptomeriopsis* STOPES et FUJII 及び *Geinitzia* ENDLICHER

スギ又はセンペル•セクォイアに似た外觀の枝葉化石が屢々見出されるが，明

かに違ふものが三種ある。第一は STOPES・藤井兩氏によつて記載された *Cryptomeriopsis antiqua* に該當するもので，數も一番多い。*C. mesozoica* SUZUKI は葉の下皮の發達程度其他によつて前者と區別されると云はれ，筆者も小倉博士の御好意により其の模式標本を檢鏡させて戴いた。JEFFREY 氏によると *Cryptomeriopsis* は *Geinitzia* に包含され，Araucariaceae に屬するとのことであるが，STOPES，SEWARD 等によつて指摘された様に材や髓，葉肉等に於ける Araucaria 的性質は甚だ少い様だ (第 3 圖上)。

第二の材料は 1 糎以上もある葉をつけ，構造丈けでは JEFFREY 氏の記載した *Geinitzia Reichenbachi* (GEIN.) に酷似して居るが，大さの點に於て雲泥の差がある。葉の構造も *Cryptomeriopsis* とは異つて居り，新しい種類と考へて居る (第 3 圖中)。

第三は扁平な葉を有し，其の斷面は稍ゝ菱形に近く中央に 1 本の樹脂道 (?) が通つてゐる。詳細の構造は保存が悪いため分らないが，或は全然別な屬に入るものかも知れない (第 3 圖下)。



第 3 圖　*Geinitzia* の葉の横斷模型圖

(6)　*Piceophyllum* OGURA

薄片中にはマツ科植物の葉と考へられるものが可なり澤山ある。此等の中に斷面略々菱形で左右端に小樹脂道を有し，中央には內皮に包まれた一維管束を含むものがある。葉肉も簡單な柔細胞から成り下皮もある様で，現生 Picea の葉に最も似て居る。廣い意味に於て *Pityites* SEWARD に入るものに違ひないが明かに *Pinus* 型ではないから *Piceophyllum* OGURA に屬させた方がよいと考へる。然し *P. simplex* とは著しく相違し，*Picea Maximowi*, *P. polita* 等の陽葉等に比較的似て居る。

尙，丸味ある斷面を示し樹脂道を缺き中央によく發達した內皮に包まれた 1 維管束のある葉も見出されたが，凡ての點に於て現生 *Cedrus* の葉に最も近いと考へられる。

(7)　*Strobilites* LINDLEY et HUTTON

標本は 4mm 許りの楕圓體で漸く 2 枚薄片を作つた。中央の軸部は保存されてゐないが，その周圍に數個の小室があり，その中に花粉らしい球狀體を含んで居る。大體の形と内容物から推して毬果植物就中 Taxodiaceae か Cupressceae の雄花と思はれる。

便宜上裸子植物の花の化石の多くは *Strobilites* なる屬名の下に一括されて居るが，多くは印痕で内部構造の明かな雄花は少ない。HOLLICK と JEFFREY 兩氏によつて *Strobilites microsporophorus* と命名された *Araucaria* 樣の male cone は極めて美事なもので維管束や移入組織も明瞭，花粉は有翼で，明かに本材料と異つて居る。

終に臨み御指導を賜つた矢部•小倉兩先生に深く感謝の意を表します。

(Résumé)

Preliminary Report on Some Cretaceous Plants from Karahuto

By

Misaburô SHIMAKURA

The structure of some Cretaceous plants collected from Karahuto (South Saghalin) are studied under the microscope and their affinities are discussed. The material comprise;

1. *Cladophlebis frigida* (HEER).
   Several pinnulae with well preserved vascular bundles.
2. ? *Nilssonia* sp.
   A part of parallel-veined leaf: it is more simply constructed than in *Nilssonia orientalis* described by STOPES.
3. *Nipponophyllum* sp.

A part of parallel-veined leaf with well developed palisade tissue, hypodermis, endodermis, and sclerenchyma, without resin canal. In structure it is nearer to *Nipponophyllum cordaitiforme* STOPES et FUJII than to any other gymnospermous leaves such as *Ginkgo biloba*, *Araucaria Bidwilli*, *Podocarpus Nagi*, *Cordaites* spp., *Nilssonia orientalis*, and *Desmiophyllum Solmsi*, but the two are not the same in species.

4. *Brachyphyllum* spp.

Two forms are found: one is quite identical with *Yezonia vulgaris* STOPES et FUJII (*Brachyphyllum vulgare*), while the other is structurally new, and is somewhat like *B. crassum*.

5. *Geinitzia* and *Cryptomeriopsis*.

Three forms are found: the first form is identical with *Cryptomeriopsis antiqua* STOPES et FUJII; the second, represented by a curved acerousleaf, somewhat resembles *Geinitzia Reichenbachii* HOLLICK et JEFFREY in structure; the third is a poorly preserved branch with compressed linear leaves.

6. *Piceophyllum* sp.

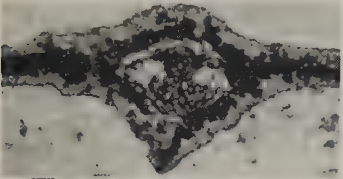
Leaf of *Picea* sp. with two resin canals and a vascular bundle surrounded by well developed endodermis.

7. *Strobilites* sp. (aff. *microsporophorus* HOLLICK et JEFFREY).

Staminate strobile of taxodiacean or cupressacean plants.

Explanation of Plate.

1. *Cladophlebis frigida*; transverse section of the pinnule.
2. ? *Nilssonia* sp.; transverse section of the leaf.
3. *Nipponophyllum* sp.; transverse section of the leaf.
4. *Piceophyllum* sp.; transverse section of the leaf.
5. *Cryptcmeriopsis antiqua*; transverse section of the leaf.
6. The same; longitudinal section of the branch.
7. *Geinitzia* sp.; transverse section of the branch.
8. *Brachyphyllum* sp.; transverse section of the branch.
9. *Brachyphyllum vulgare*; longitudinal section of the leaf.
10. ? *Geinitzia* sp.; transverse section of the branch.
11. *Strobilites* sp.; transverse section of the male cone.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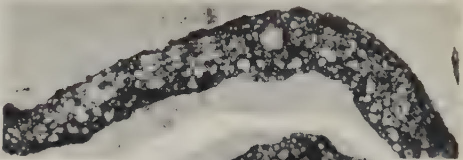
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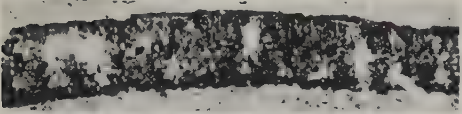
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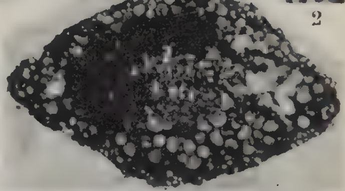
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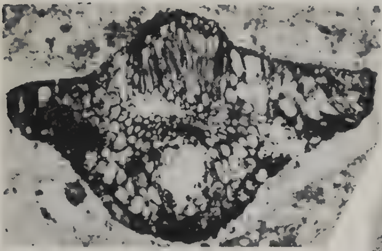
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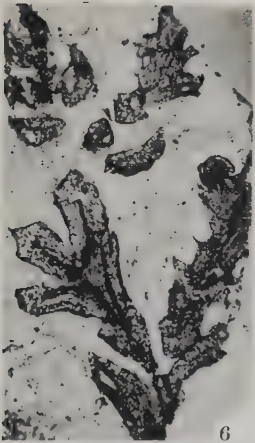
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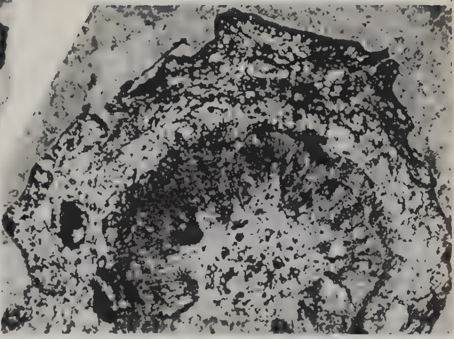
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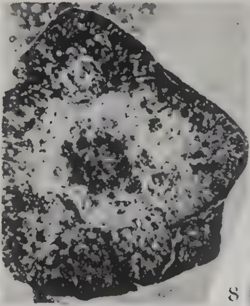
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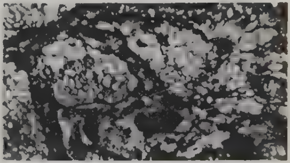
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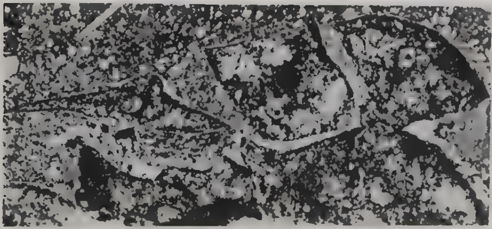
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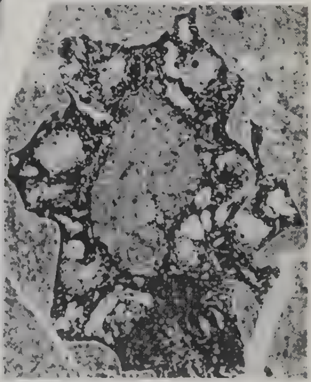
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24. *On the Classification and Phylogenetic Relation of Genera of the Melobesiae*

By

Wataru ISHIJIMA

(Read Nov. 30, 1935; received Sept. 8, 1936.)

At present our taxonomic knowledge of the Melobesiae is far from satisfactory. Moreover, in our country, very little attention has hitherto been devoted to the recent forms of this group.

For a long time great diversity of opinion has prevailed as to the classification of the Melobesiae. Of prime importance for this purpose is the disposition of conceptacles according to M. FOSLIE and the microstructure and development of reproductive organ according to HEYDLICH. The controversy continued until Mme Paul LEMOINE for the first time, in 1911, called attention to the anatomical distinction recognizable between various genera, which has a very important bearing on the determination of fossil forms, because they can hardly be expected always to have traces of their reproductive organs preserved. In treating classification, of course, we feel the need of studying the shape, position and structure of conceptacles.

In 1928, Mme LEMOINE[1] established a new genus *Mesophyllum* for species having the distinctly stratified and zonate hypothallium previously considered by her to be characteristic of the genus *Lithophyllum*, combined with the many-orificed tetrasporangial sori previously considered characteristic of the genus *Lithothamnium*.

The geological range of the genus *Mesophyllum* is Upper Cretaceous to Recent, its species hitherto known being; *M. paronai*

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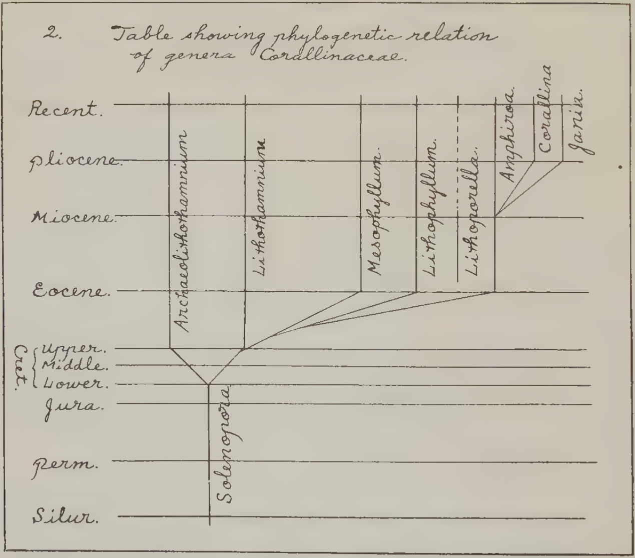
[1] P. LEMOINE: Un nouveau genre de Mélobesiées, Mesophyllum, Bull. Soc. Bot. France, ser. 5, T. 4, (1928), pp. 251–254.

Rain., Upper Cretaceous; *M. vignyense* Lem., Montian; *M. schencki* Hawe, Eocene; *M. concretum* Lem., Lower Oligocene; *M. ithmi* Howe, Oligocene; *M. vaughani* (Howe), Oligocene; *M. konitzae* Lem., Miocene; *M. austraiacum* Lem., ?.

In the annexed table 2, are listed the genera of the Corallinacaea; in the first three columns those of the Melobesiae accepted by Foslie, Lemoine and Howe respectively, and in the next two those of the Corallinae accepted by Weber and Endô respectively, while in the last one are given the genera of the Melobesiae and Corallinae now thought to be valid by me.

The phyletic relationship of these genera must now be revised with the new introduction of Mesophyllum with the diagnostic features and geological range as stated above into the system, and my own view in this respect is expressed in table 1

Table 1.



In closing, I wish to express my cordial thanks to Prof. H. Yabe of the Institute of Geology and Palaeontology, Tôhoku Imperial University, Sendai, for his kind help and criticisms given me during the preparation of this note.

Table

Foslie	Lemoine	Howe
Archaeo-lithothamnium	*Archaeo-lithothamnium*	*Archaeo-lithothamnium*
Lithothamnium	*Lithothamnium*	*Lithothamnium*
Goniolithon *Eugoniolithon* *Hydrolithon*	*Lithophyllum*	*Goniolithon*
Lithophyllum *Lepidomorphum* *Eulithophyllum* *Dermatolithon* *Carpolithon*		*Lithophyllum*
Melobesia *Eumelobesia* *Heteroderma*	*Melobesia*	
Mastophora	*Mastophora*	
Epilithon		
Choreonema		
	Mesophyllum	*Mesophyllum*
	Porolithon	
	Tenarea	

Fossil occurrences are marked by asterisks

Melobesiae の分類と各屬の系統關係（摘要）

石 島　渉

石灰藻珊瑚藻サビ亞科の分類は Foslie, Heydrich 兩氏の間に於て，永らく論爭せられた處であるが 1911 年佛の Lemoine 女史は從來閑却せられたる榮養器管の構造を主としたる新分類法を建てた。之は尙細かな點に異論はあるが，化石を扱ふ者にとつて最も合理的であり，便利であるので，一般に古生物學者間に認められて居る。筆者は之が硏究遂行上に從來の紛糾せる分類を統一するの要に迫られ別表の如くした（附表 2)。尙各屬相互の系統關係も表の如く改變したいと思ふ（附表 1)。

2.

WEBER	YENDO	ISHIJIMA
		**Archaeo-lithothamnium*
		Lithothamnium
		**Lithophyllum*
		**Lithoporella*
		Epilithon
		Choreonema
		**Mesophyllum*
Amphiroa	*Amphiroa* *Euamphiroa* *Eurytion* *Arthrocardia* *Marginisporum*	**Amphiroa*
Metagoniolithon	*Metagoniolithon*	*Metagoniolithon*
Litharthron	*Litharthron*	*Litharthron*
Arthrocardia		**Arthrocardia*
Cheirosporum	*Cheirosporum* *Eucheirosporum* *Alatocladia* *Serraticardia*	*Cheirosporum*
Corallina *Jania*	*Corallina* *Officinales* *Halyption*	**Corallina*
	Jania	**Jania*
Lithothrix	*Lithothrix*	*Lithothrix*

25. *New Species of Foraminifera from Aki-gun, Tosa Province, Japan*

(Studies on the Fossil Foraminifera from the
Neogene of Japan, Part 7.)

By

Kiyosi ASANO

Contribution from the Institute of Geology and Palaeontology,
Tôhoku Imperial University, Sendai, Japan.

(Read and received September 26 th., 1936.)

It has been known for many years that some of the Neogene rocks of the coast of Aki-gun, Tosa Province, Japan contain Foraminifera in large numbers though we have no information published about the details of the fauna.

The present article comprises only descriptions of new forms of Neogene and recent Foraminifera collected by Prof. H. Yabe and Mr. S. Nomura from the district. General accounts of the fossil foraminifera and of the recent forms from the adjacent Tosa Bay will appear in my article* entitled, "On Recent Foraminifera found in Tosa Bay and Fossil Foraminifera from the Pliocene of Aki-gun, Tosa Province, Japan".

At this place I wish to express my sincere thanks to Prof. H. Yabe for kindly correcting this note before publication and also for the suggestions given me throughout the course of study. Acknowledgements are also due to him as well as Mr. S. Nomura for kindly submitting their collection to my study.

Quinqueloculina yabei n. sp.

Pl. 51 (17), Figs. 1 a–c.

Test compressed, slightly longer than broad; periphery sharply angled, more or less carinate; wall ornamented with fine longitudinal striations; apertural end not produced, basal end broadly rounded; aperture oval, with bifid tooth. Length less than 1.2 mm.

Holotype (Reg. No. 21385**), from the shore sands of Kannoura, Aki-gun, Japan ; Recent.

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* Jour. Geol. Soc. Japan, 1936 (in Japanese).

** Register number of specimen stored in collection of Institute of Geology and Palaeontology, Tôhoku Imperial University, Sendai, Japan.

This species differs from *Q. dutemplei* D'ORBIGNY which was originally described from the Miocene of the Vienna Basin in much finely striated surface of test. It is very similar to *Q. striatula* CUSHMAN in the striation but is quite different in the shape of the aperture.

Quinqueloculina contorta striata n. subsp.

Pl. 51 (17), Figs. 2 a–c.

The present subspecies differs from the typical form of *contorta* in the striated surface of chambers. *Q. contorta* D'ORBIGNY was originally described from the Miocene of the Vienna Basin and has a smooth surface. Length about 0.5 mm ; breadth 0.3 mm or more.

Holotype (Reg. No. 21389), from the Pliocene of Tônohama, Aki-gun, Japan.

This new form occurs commonly in the Pliocene and recent faunas of Japan but has hitherto not been described.

Flintina japonica n. sp.

Pl. 51 (17), Figs. 3 a–c.

Test somewhat compressed, periphery broadly rounded ; chambers distinct, each coil composed of three chambers in a single plane ; suture fairly distinct, slightly depressed ; wall smooth ; aperture broadly oval, with a distinct bifid tooth and thickened lip. Diameter about 1 mm ; thickness 0.3 mm.

Holotype (Reg. No. 21386), from the shore sands of Kannoura, Aki-gun, Japan ; Recent.

This is a distinct species common in the shore sand of Kannoura, but is not yet known from elsewhere. The genus, *Flintina* is in most of its species confined to the Indo-Pacific region.

Flintina nomurai n. sp.

Pl. 51 (17), Figs. 4 a–c.

Test triloculine, becoming planospiral in adult ; periphery broadly rounded ; chambers distinct, inflated ; sutures somewhat depressed ; wall smooth, polished ; aperture large, with thickened lip and complex tooth. Diameter about 0.7 mm ; thickness 0.3 mm.

Holotype (Reg. No. 21387), from the shore sands of Kannoura, Aki-gun, Japan ; Recent.

This species resembles *F. bradyana* Cushman, the genotype species, in the triloculine test, but is easily distinguished from it by the smooth surface of the chambers.

Flintina depressa n. sp.

Pl. 51 (17), Figs. 5 a–c.

Test depressed, periphery acute but not carinate ; crambers in early stage quinqueloculine, three last chambers in a single plane making up adult coil ; chambers slightly inflated, last formed one much compressed and small ; sutures distinct, slightly depressed ; wall polished, ornamented with numerous fine longitudinal or oblique striations ; aperture oval, with a simple produced tooth, very slight lipped. Diameter up to 0.8 mm.

Holotype (Reg. No. 21388), from the shore sands of Kannoura, Aki-gun, Japan ; Recent.

The present form stands between *F. japonica* and *F. nomurai* in the construction of the test, but is easily distinguished from them by chambers with acute periphery.

Clavulina tosaënsis n. sp.

Pl. 52 (18), Figs. 2, 3.

Test large, elongate, early portion pyramidal, triserial, later uniserial, generally rounded in transverse section ; chambers inflated, increasing rather uniformly in size, in uniserial portion, somewhat indistinct in triserial portion ; wall coarsely arenaceous, variable ; aperture terminal in adult, circular. Length up to 1.5 mm.

Holotype (Reg. No. 21391), from the Pliocene of Tônohama, Aki-gun, Japan.

The present form is larger than any other species of this genus found in this district, and is characterized by distinctly inflated chambers of the uniserial portion.

Clavulina yabei akiensis n. subsp.

Pl. 52 (18), Figs. 4, 5.

Differs from the typical *C. yabei* Asano in coarsely arenaceous texture. Length up to 1.0 mm.

Holotype (Reg. No. 21390), from the Pliocene of Tônohama, Aki-gun, Japan.

The present form is distinguished from *C. tosaensis* above described by the cylindrical uniserial portion consisting of chambers almost uniform in diameters.

Epistomaria yabei n. sp.

Pl. 52 (18), Figa. 1 a-c.

Test large, depressed trochoid; chambers numerous, about 11–13 in final coil, with distinct supplementary chamberlets on umbilicus of ventral side; sutures distinct, much depressed; wall rather coarsely perforated; apertures ventrally at periphery of secondary chamberlets, with elongate supplementary apertures opened along sutures at inner edge of chambers. Diameter about 1.3 mm.

Holotype (Reg. No. 21392), from the shore sands of Kannoura, Aki-gun, Japan; Recent.

This species is based on only two specimens. but is so characteristic that any further explanation seems unnecessary. There are several differences recognizable between this species and *E. rimosa* (Parker and Jones); among others, the latter is characterized by having about 6 decidedly fewer, inflated, chambers which rapidely enlarges.

Explanation of Plate 51 (17)

Figs. 1 a–c.	*Quinqueloculina yabei* n. sp., ×50
Figs. 2 a–c.	*Quinqueloculina contorta striata* n. subsp. ×35
Figs. 3 a–c.	*Flintina japonica* n. sp. ×50
Figs. 4 a–c.	*Flintina nomurai* n. sp. ×50
Figs. 5 a–c.	*Flintina depressa* n. sp. ×50

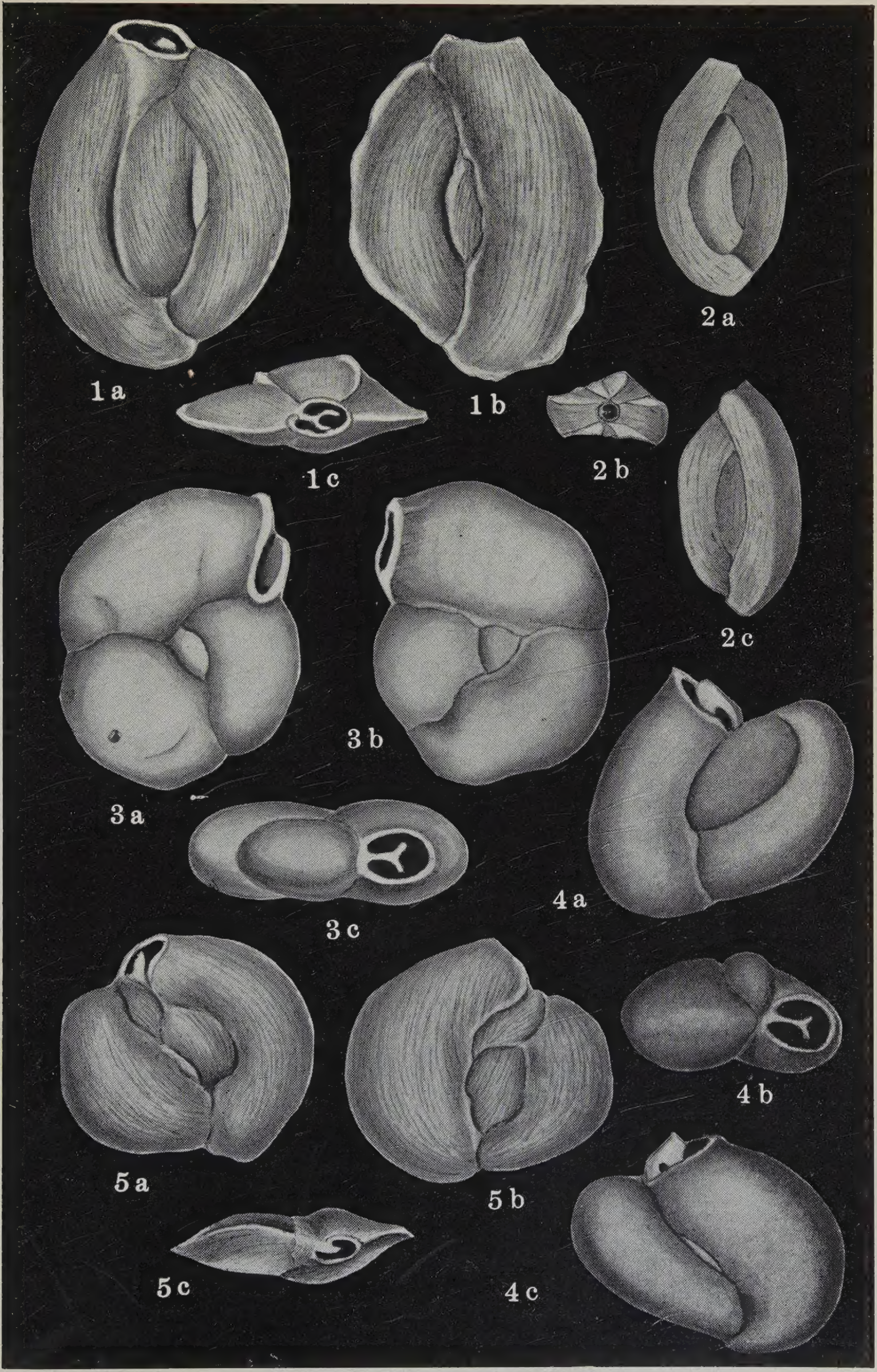
Explanation of Plate 52 (18)

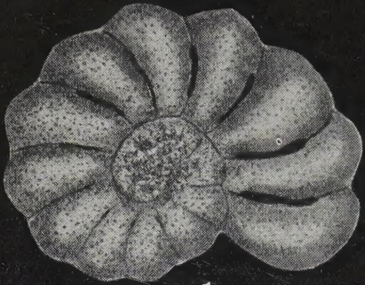
Figs. 1 a–c.	*Epistomaria yabei* n. sp. ×50
Figs. 2, 3.	*Clavulina tosaensis* n. sp. ×50
Figs. 4, 5.	*Clavulina yabei akiensis* n. subsp. ×40
Figs. 6 a, b.	*Siphogenerina raphana* (Parker & Jones). ×80
Figs. 7 a, b.	*Nonion bouéanum* (d'Orbigny). ×80

土佐國安藝郡產有孔蟲の新種（摘要）

淺　野　　淸

“土佐灣現生有孔蟲類と土佐國安藝郡鮮新世化石有孔蟲類との比較考察”（地質學雜誌，第44卷，第520號，昭和12年）に於いて，取扱つた有孔蟲類の新種のみを，玆に記載したものである。


1 a
1 b
2 a
1 c
2 b
2 c
3 a
3 b
3 c
4 a
4 b
5 a
5 b
5 c
4 c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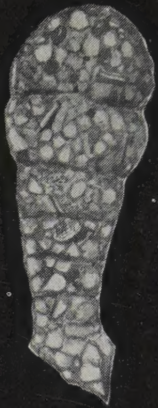
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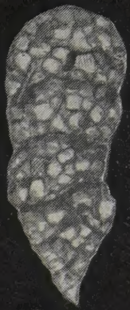
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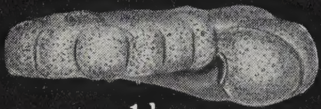
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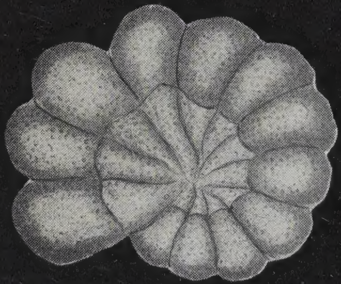
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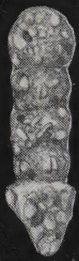
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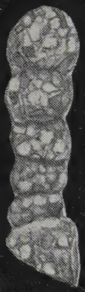
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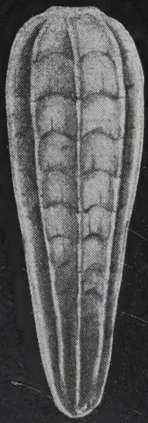
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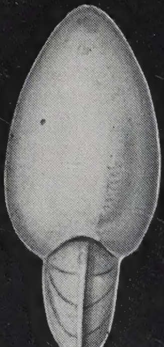
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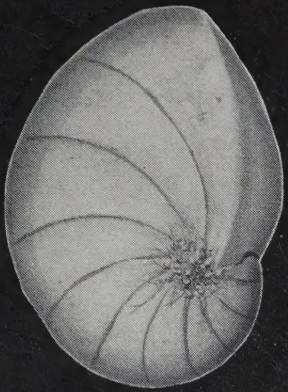
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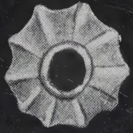
6 b

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1. 本會ハ日本地質學會ノ部會ニシテ日本古生物學會ト稱ス
2. 本會ハ古生物學及ビ之レニ關スル諸學科ノ進步ヲ助ケ斯學ノ普及ヲ圖ルヲ以テ目的トス
3. 本會ハ第2條ノ目的ヲ達スルタメニ總會及講演會ヲ開ク
4. 本會ノ紀事及ビ會員ノ寄稿ハ地質學雜誌ニ揭載シ　共ノ別刷ヲ日本地質學會々員ニアラザル本會々員ニ配布ス
5. 本會ノ會費ハ年額3圓トス, 但シ日本地質學會々員ハ年額1圓トス
6. 本會ニ次ノ役員ヲ置ク

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評議員	數名

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東京帝國大學理學部地質學教室
日本古生物學會
（振替口座東京第 84780 番）

Constitution of the Palaeontological Society of Japan.

Article 1. The Society shall be known as the Palaeontological Society of Japan. It forms a section of the Geological Society of Japan.

Article 2. The object of the Society is the promotion of palaeontology and related sciences.

Article 3. This Society to execute the scheme outlined under Article 2, shall hold annual meetings and discussions.

Article 4. Proceedings of the Society and articles for publication shall be published through the Journal of the Geological Society of Japan. Separates and circulations will be sent to members of the Palaeontological Society who are not members of the Geological Society of Japan.

Article 5. The annual dues of this Society is two dollars for the foreign members of the Society.

Article 6. This Society shall hold the following executives. President one person, Councillors several persons.

Article 7. The President and Councillors shall be elected annually. The President and Councillors shall be elected from the Society body by vote of its members. All elections shall be ballot.

President Shigeyasu TOKUNAGA

Councillors
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(* Executive committee)

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Geological Institute, Faculty of Science, Imperial University of Tokyo, Japan